

COASTAL CONSERVANCY

Staff Recommendation

January 23, 2013

HISTORICAL ECOLOGY STUDY OF NORTH SAN DIEGO COUNTY COASTAL WETLANDS

Project No. 10-043-01

Project Manager: Megan Cooper

RECOMMENDED ACTION: Augment the Conservancy's December 2, 2010 authorization with an additional amount of up to \$25,000 to the San Francisco Estuary Institute for the Historical Ecology Study of North San Diego County Coastal Wetlands project.

LOCATION: North San Diego County

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

Exhibit 1: [Project Location](#)

Exhibit 2: [Conservancy's December 2, 2010 Authorization](#)

Exhibit 3: [Sample Graphics for Expanded Report](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to sections 31251-31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an additional amount of up to twenty five thousand dollars (\$25,000) to the San Francisco Estuary Institute for a total grant of up to three hundred seventy thousand dollars (\$370,000) to develop communication and visualization tools and reporting to cover additional data and synthesis for the Historical Ecology Study of North San Diego County Lagoons project. This authorization remains subject to the conditions of the December 2, 2010 authorization. In addition, the grantee shall develop a new work program, budget and schedule prior to disbursement of funds for this portion of the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that the proposed project remains consistent with the Conservancy's findings under the December 2, 2010 authorization with respect to the project's consistency with Chapter 6 of Division 21 of the Public Resources Code and the status of the San Francisco Estuary Institute's

corporate purposes as a non-profit organization. The project, including the augmented portion, is also consistent with the revised Project Selection Criteria and Guidelines adopted on November 10, 2011.”

PROJECT SUMMARY:

Staff recommends that the Conservancy augment its December 2, 2010 authorization to disburse an additional amount of up to \$25,000 to the San Francisco Estuary Institute (SFEI) for the Historical Ecology Study of North San Diego County Coastal Wetlands (“the Study”). This augmentation will cover the cost of preparing graphics to help resource managers better understand historical ecology information that has been assembled pursuant to the initial grant. SFEI, in collaboration with the Southern California Coastal Water Research Project (SCCWRP) will use these additional funds to produce an illustrated technical report describing the findings and implications of their historical research on the area for sustainable wetland restoration planning. The proposed augmentation is in addition to an augmentation provided under the Executive Officer’s delegated authority, which is funding additional data analyses and technical studies.

The grantee has made significant findings on historical conditions and processes of wetlands in north San Diego County during the first two years of the Study. They have documented the historical presence of an important type of California estuary: mid-sized, low-rainfall, intermittently open, marsh-flat wetland systems. This Study has developed a new, robust understanding of the former ecological patterns and trajectories of these systems. These wetland systems supported a diverse range of habitat types and were likely crucial to critically important species such as snowy plovers and California least terns.

Despite their historically significant ecosystem values, the coastal ecosystem type described through this study is not widely recognized in California conservation, restoration, and management planning. This is in part because coastal ecosystem formation, characteristics, and ecological functions is generally poorly documented, and also because the history of these estuaries has been frequently misinterpreted.

Discussions with resource managers in southern California and the Bay Area have highlighted the importance of conveying a better understanding of the patterns and processes of these intermittently open systems. Strong visualization tools are needed to communicate the new, and at times controversial, information developed through the Study. SFEI has found through experience that compelling annotated graphics (e.g., Exhibit 3) are often the most widely used part of a study by resource managers and the public, since they synthesize major study findings in an easily accessible way.

Through the proposed augmentation, the grantee will produce a series of engaging graphics that illustrate the overall ecological patterns and supporting physical processes of this understudied estuarine type. These graphics will maximize study impact by helping to effectively convey results both locally and regionally.

These graphics will:

- Synthesize the reconstruction of historical ecological patterns, generalizing the lagoon-by-lagoon mapping into a conceptual model of broad estuarine patterns that transcend any individual system;
- Illustrate the seasonally dynamic nature of this type of estuary by showing cyclical changes in habitat mosaics through time;
- Integrate ecological patterns with the supporting processes to show the physical characteristics and broad system drivers; and
- Discuss the ecological functions likely provided by this system type.

Through the success of project research to date, SFEI is in a position to produce an unusually integrative report. The report will supplement historical ecology with robust contemporary analyses that address many of the key questions about these estuaries. These include an analysis of sedimentation rates and sea level rise in the recent past as related to lagoon ecology, estimations of historical tidal prism volumes for each lagoon, inlet closure dynamics, mapping of freshwater/brackish upslope wetlands, and an analysis of early grazing impacts in the watersheds. These analyses, along with additional historical data discovered for each lagoon, were funded through the Executive Officer's augmentation. Thus, the need to report on these analyses was not included in the original estimate for report length.

Through the proposed augmentation, SFEI will expand reporting substantially to cover this additional data and research. In order to provide additional details on each lagoon and adequately explain the results of each analysis clearly, thoroughly, and concisely, the report will need to be about 100-150 pages (rather than the originally anticipated 60-80 pages). The expanded report will include a chapter on each of the six lagoons studied, as well as a Regional Synthesis chapter describing the results of the analysis. The expanded report will be easy to browse and visually compelling, providing a major advance for understanding and managing these systems.

Project History: On December 2, 2010 the Conservancy authorized disbursement of up to \$300,000 in Conservancy funds for this project. Subsequent to that approval, the Executive Officer, acting under delegated authority, authorized the disbursement of an additional \$45,000 to complete additional data analyses and technical studies (See Project Financing section below).

Additional project history is described in detail in the attached, December 2, 2010 staff recommendation (Exhibit 2).

PROJECT FINANCING

Coastal Conservancy (original)	\$300,000
Executive Officer augmentation	\$45,000
<u>Current Request</u>	<u>\$25,000</u>
 Total Project Costs	 \$370,000

HISTORICAL ECOLOGY STUDY OF NORTH SAN DIEGO COUNTY COASTAL WETLANDS

The anticipated source of Conservancy funds will be the fiscal year 11/12 re- appropriation of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). This funding may be expended, in accordance with the Conservancy's enabling statutes, "for the protection of San Diego Bay and adjacent watersheds" as specified in section 75060(f) of the Public Resources Code. "San Diego Bay and adjacent watersheds" includes all coastal and bay watersheds within San Diego County (Pub. Res. Code § 75072.6), and the term "protection" includes the "preservation and interpretation" of natural resources (*Id.* § 75005(m)). Consistent with Proposition 84, this Study will provide and disseminate important information necessary to protect the beaches, bays and coastal waters of the San Diego Bay and County for future generations (*Id.* § 75003(d)). As discussed in the previous staff recommendation, the project is consistent with Chapter 6 of Division 21.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project remains consistent with the Conservancy's December 2, 2010 authorization with respect to the Conservancy's enabling legislation (See Exhibit 2).

CONSISTENCY WITH CONSERVANCY'S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5, Objective A** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will assist in the development of two restoration plans for San Elijo and Buena Vista Lagoons, and will also provide information for future planning processes.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project remains consistent with the Conservancy's December 2, 2010 authorization regarding project selection criteria. Since the first grant to this project, the Conservancy has amended its Project Selection Criteria and Guidelines to delete reference to planning "for the years 2050 and 2100." Given that this project is an historical study, the change to the Guidelines does not affect the Conservancy's consideration of this augmentation.

COMPLIANCE WITH LOCAL COASTAL PROGRAMS:

The proposed project remains consistent with the Conservancy's December 2, 2010 authorization with respect to the Local Coastal Program Policies (See Exhibit 2).

COMPLIANCE WITH CEQA:

The augmentation will only involve office-work and will not involve activities which would be subject to further CEQA review. The proposed project as a whole remains exempt, consistent with the Conservancy's December 2, 2010 authorization with respect to projects involving only feasibility or planning studies (14 California Code of Reg. § 15262). Upon approval, staff will file a notice of exemption.